

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 3 and 5, 8-11 are pending in the application. Claims 1, 3, 5, 8 and 9 are amended; and Claim 11 is added; and Claim 7 is canceled without prejudice or disclaimer by the present amendment. Support for the new and amended claims can be found in the original specification, claims and drawings.¹ No new matter is presented.

In the Official Action, Claim 5 was rejected under 35 U.S.C. §112, second paragraph; Claims 1, 3 and 5 were rejected under 35 U.S.C. § 103(a) as unpatentable over Harel et al. (U.S. Pat. No. 6,128,472, herein Harel) in view of Beckmann et al. (U.S. Pub. 2003/0022683, herein Beckmann); Claims 7-8 were rejected under 35 U.S.C. 103(a) as unpatentable over Harel in view of Beckmann and Kall et al. (U.S. Pat. 7,149,195, herein Kall); and Claims 9-10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Harel in view of Kall.

Claim 5 was rejected under 35 U.S.C. §112, second paragraph, for failing to have antecedent basis for the feature of “the response signal holder.” In response, Claim 5 is amended to recite “a response signal holder” instead of “the response signal holder.”

Accordingly, Applicants respectfully request that the rejection of Claim 5 under 35 U.S.C. §112, second paragraph, be withdrawn.

Claims 1, 3 and 5 were rejected under 35 U.S.C. § 103(a) as unpatentable over Harel in view of Beckmann. As noted above, Claims 1 and 3 are amended to incorporate the subject matter of canceled Claim 7, and also to recite more detailed features directed to transmitting the response signal “without waiting to receive a subsequent response signal transmitted from another mobile station.”

¹ E.g. Claims 1 and 3 are amended to incorporate the subject matter of canceled Claim 7 and support for new Claim 11 can be found at least at p. 19, ll. 13-17 of the specification.

More particularly, Claim 3 recites a base station supporting multicast communication, the base station comprising:

a response signal counter configured to count the number of plurality of response signals to a control signal for a multicast group, the plurality of response signals being transmitted from mobile stations and including a same group ID identifying a same multicast group to which the mobile stations are requesting to join;

a judge configured to judge whether the counted number of the plurality of response signals is more than a predetermined number or not; and

a response signal transmitter configured to transmit, to a radio network controller, one response signal selected from the plurality of response signals, *without waiting to receive a subsequent response signal transmitted from another mobile station*, when the counted number of the plurality of response signals is more than the predetermined number

Independent Claim 1, while directed to a system including a mobile station, is amended to recite similar features. Accordingly, the remarks and arguments presented below are applicable to each of independent Claims 1 and 3.

Turning to the applied references, Harel describes a message management system 310 provided between the central base station controller 112 (i.e. radio network controller) and the receivers 108, 109 (i.e. base stations).² More particularly, Harel describes that the message management system 310 receives inbound messages simultaneously transmitted from all mobile stations belonging to the multicast group, the inbound messages including an identifier of the multicast group.³ The message management system 310 then selects one message among inbound messages simultaneously transmitted from all mobile stations belonging to the multicast group, to direct to the central base station controller 112.⁴

Thus, Harel describes that the message management system 310 selects one message for directing to the central base station controller 112 after receiving all messages simultaneously transmitted from all mobile stations belonging to the multicast group. Harel, therefore, does not teach or suggest that the message management system 310 directs one

² Harel, Fig. 3.

³ Id., col. 4, ll. 14-18, col. 5, ll. 4-7 and Fig., 4, step 420.

⁴ Id., col. 5, ll. 7-9, Fig. 4 step 430.

message to the central base station 112 without waiting to receive all messages simultaneously transmitted from all mobile stations belonging to the multicast group.

Harel, consequently, also fails to teach or suggest “transmitting, to a radio network controller, one response signal selected from the plurality of response signals, *without waiting to receive a subsequent response signal transmitted from another mobile station*, when the counted number of the plurality of response signals is more than the predetermined number” in order to rapidly transfer only one selected response signal among the predetermined number of response signals, as recited in amended independent Claims 1 and 3.

The first applied secondary reference Beckmann, is relied upon only to show a radio network controller, and also fails to teach or suggest the above-noted features recited in amended independent Claims 1 and 3.

Accordingly, Applicants respectfully request that the rejection of Claims 1 and 3 (and Claim 5, which depends therefrom) under 35 U.S.C. § 103 be withdrawn.

With regard to the rejection of Claim 8 under 35 U.S.C. 103(a) as unpatentable over Harel in view of Beckmann and Kall, Applicants note that Claim 8 depends from independent Claim 3 and is believed to be patentable for at least the reasons discussed above. Further, Applicants respectfully submit that Kall fails to remedy the above noted deficiency of Harel and Beckmann.

Accordingly, Applicants respectfully request that the rejection of Claim 8 under 35 U.S.C. § 103 be withdrawn.

Claims 9-10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Harel in view of Kall. Applicants respectfully traverse this rejection, as independent Claims 9 and 10 recite novel features clearly not taught or rendered obvious by the applied references.

Claim 9 recites, in part, a radio network controller supporting multicast communication, the radio network controller comprising:

a receiver configured to receive a response signal transmitted from at least one base station, the response signal including a same group ID identifying a same multicast group to which the mobile stations are requesting to join, and *including information showing that the number of response signals transmitted from mobile stations is more than the predetermined number...*

Claim 10 is also directed to a radio network controller and recites, in part, that the controller comprises:

a receiver configured to receive a response signal... *including the number of response signals transmitted from mobile stations* and including a same group ID identifying a same multicast group to which the mobile stations are requesting to join...

In rejecting Claims 9 and 10, the Office Action admits that Harel fails to disclose “response signals being more than a predetermined number” and “a response signal including the number of response signals transmitted from mobile stations.” In an attempt to remedy this deficiency, the Office Action relies on Kall and asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the cited references to arrive at Applicants’ claims. Applicants respectfully traverse this assertion, as Kall fails to teach or suggest the claimed features for which it is asserted as a secondary reference under 35 U.S.C. § 103.

Kall describes a radio network controller which process transmission requests for requesting transmission of multicast data, the transmission requests received from a plurality of mobile stations in the multicast group. As described at col. 4, ll. 8-19, the RNC 36 judges whether the number of mobile stations requesting transmission of multicast data is increased more than the selected level. The RNC 36 then unicasts multicast data when the number of mobile stations requesting transmission of multicast data is reduced beneath a selected level.

RNC 36 RANcasts (multicasts) multicast data when the number of mobile stations requesting transmission of multicast data is increased more than the selected level.

Thus, Kall describes that the RNC 36 unicasts multicast data when the number of mobile stations requesting transmission of multicast data is reduced beneath a selected level, and RANcasts (multicasts) multicast data when the number of mobile stations requesting transmission of multicast data is increased more than the selected level. Kall, however, fails to teach or suggest how the radio network controller counts the number of mobile stations requesting transmission of multicast data.

Therefore, Kall does not disclose or suggest that the radio network controller receives a response signal *including information showing that the number of response signals transmitted from mobile stations is more than the predetermined number*, as recited in independent Claim 9.

Similarly, Kall also fails to teach or suggest that the radio network controller receives a response signal *including the number of response signals transmitted from mobile stations*, as recited in independent Claim 10.

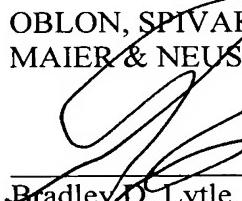
Accordingly, Applicants respectfully request that the rejection of independent Claims 9 and 10 under 35 U.S.C. § 103 be withdrawn.

Further, new dependent Claim 11 depends from independent Claim 3 and recites that “the response signal transmitter is configured to transmit, to the radio network controller, the plurality of response signals, instead of transmitting the one response signal selected from the plurality of response signals, when the counted number of the plurality of response signals is less than or equal to the predetermined number.”

Applicants submit that the applied references, neither alone, nor in combination, teach or suggest the above noted feature recited in new dependent Claim 11.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1, 3 and 5, 8-11 is patentably distinguish over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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